

Well Bits

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State Well Standards Enters 20th Year

By Tom Christopherson

2006 marks the 20th anniversary of the adoption of the Water Well Standards and Contractors Licensing Act. While Title 178 regulations have changed over the past twenty years, the Act has remained consistent and steadfast in the intended purpose of its legislation. The purpose of the Act is founded in four principals; 1) Provide protection of the groundwater through the licensing and regulation of water well contractors and pump installation contractors, certification of well drilling and pump installation supervisors, water well monitoring technicians, and natural resource groundwater technicians...; 2) Protect the health and general welfare of the citizens of the State...3) Protect groundwater resources from potential pollution by providing for proper siting and construction of water wells and the proper decommissioning of water wells...4) Provide data on potential water supplies through well logs which will promote the economic and efficient utilization and management of the water resources of the state.

Today I would like to focus in on the first purpose of the Act. The State of Nebraska issues licenses to individuals who are either the owners of the company or employed as a manager, director or the principal officer. This means the company that actually performs the duties of well construction, well decommissioning, or pump installation must have a license holder in that company. That license holder must have supervisory and discretionary authority over the workers performing those duties. If a licensed company wants to subcontract work to another company the sub-contractor must either have its own license or employ the license holder from the

contracting company and provide him/her with the authority over the sub-contractors employees. If you note who can obtain a license as defined in the "Act", the positions listed are positions of authority. This is because the Department holds the license holder accountable for the license holders actions and others working under their direct authority and supervision. Simply "leasing" your license by allowing others to work under your license without having the authority to direct the work done or to discipline an employee doing the work is not allowed.

Water Well Drilling and Pump Installation Supervisors have discretionary and supervisory authority over other workers employed by the same company the supervisor works for. However, the supervisor must work under the authority of a licensed contractor.

Water Well Monitoring Technicians and Natural Resource Groundwater Technicians may not supervise the activity of others.

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Water Well Standards

Activity Report

By Tom Christopherson

The following is a report of Water Well Standards Program activity from January 1, 2006 through May 1, 2006.

Field Inspections _____	1045
Violations _____	90
Closed Loop Pre-notifications Processed____	10
Declaratory Order Requests Processed____	7
Contractor Contacts_____	105
Number of Contractors Work Inspected____	65
Public Education Programs_____	4

Well inspections are based on wells registered with the Department of Natural Resources in 2005. The program is an active participant in the Nebraska Grout Task Force research. By the end of this year, every grout recipe approved for use in the state of Nebraska will have been tested for compliance with Title 178 regulations.

Changes coming in 2006

By Tom Christopherson

The end of the 2006 legislative session brought some changes to the Water Well Standards and Contractors Licensing Act. LB 508 provides that a licensed pump installation contractor can wire pumps and pumping equipment to the first control without having to be a state licensed electrician. The second change allows a state electrical inspector to break the seal on a well to inspect the wiring without having to be licensed as a pump installation contractor.

The third change resulting from LB 508 is the addition of a representative from a Natural Resources District who is credentialed by Health and Human Services Regulation and Licensure to the Water Well Standards and Contractors Licensing Board. This person is appointed by the Governor and will serve a four year term beginning in August 2006.

The fourth change is a provision that will allow an existing water well to be **modified or**

decommissioned when being replaced. The original water well must be modified or decommissioned within 180 days after construction of the replacement water well. (Replacement wells can still be constructed that replace an abandoned water well within three years after the last operation of the abandoned water well.) If the water well is to be modified, it must be modified to pump 50 gallons per minute or less and must be used only for livestock, monitoring, observation, or any other non-consumptive or de minimus use and approved by the applicable natural resources district. This change requires a contractor or the landowner to certify the existing well will be modified to pump 50 gallons per minute or less, or decommissioned as part of the registration form for the replacement well. Registrations are required to be filed within 60 days of the completion of the replacement well.

The fifth and final provision from LB 508 allows an NRD to develop a cost share program for decommissioning water wells that will pay up to 60% of the decommissioning costs based on the depth and diameter of the well to be decommissioned.

And finally LB 1226 provides that well construction modification and pump installation reports must be filed with the Department of Natural Resources within 60 days of completion. Before this legislation, there was no time frame for requiring a pump installation update to be filed with the DNR.

Water Well Registrations

By Tom Christopherson

As of July 1, 2001, water well contractors have been required to register any well drilled by his/her firm within 60 days of completion. By reviewing the number of water wells registered on the DNR database under a contractor's license number, the Department can monitor if a contractor is in compliance of §46-602. In addition, when a pump installation contractor files an update as they are required to by law, and the well where the pump was installed is not registered, then the

(continued on Page 3)

(Well Registrations -continued from Page 2)

drilling contractor could be cited as violating Title 178 NAC 10-004.02, number 11, "Failing to file a water well registration..." if the well is over 60 days old.

In the past the Department has successfully pursued and upheld monetary fines and disciplinary penalties for such an offense.

Illegal Water Wells

By Dale Chandler, Grand Island Office

It's been a year since I started working for the Water Well Standards Section, and it has been a very interesting job to view my counterparts from the government side of this job. My area is the Southeast Nebraska from the Dawson-Buffalo County line to Missouri River and from Nance County to the Kansas Border. This area covers 32 counties from Merrick County, which has approximately 5850 registered wells, to Pawnee County, which has 25 registered wells. I have inspected approximately 750 wells so far and also found numerous old wells that have not been abandoned which means that they are not properly decommissioned, thus making them an illegal water well.

An Illegal Water Well means any water well which has not been properly decommissioned and which meets any of the following conditions.

1. The water well is in such a condition that it cannot be placed in active or inactive status;
2. Any necessary operating equipment has been removed, and the well has not been placed in inactive status;
3. The water well is in such a state of disrepair that continued use for the purpose for which it was constructed is impractical;
4. The water well was constructed after October 1, 1986, but not constructed by a licensed contractor or by an individual on land owned by him/her and used by him/her for farming, ranching, or agricultural purposes or as his/her place of abode;
5. The water well poses a health or safety hazard;

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6. The water well is an illegal water well in accordance with Neb. Rev. Statute #46-706.

7. The water well has been constructed after October 1, 1986, and such well is not in compliance with the standards developed under the Water Well Standards and Contractors' Licensing Act.

Decommissioning a well doesn't mean filling the well with whatever is handy; the rules stated in the Water Well Standards and Contractors' Licensing Act Title 178 NAC 12-012 must be followed. The rules are self-explanatory for each type of well that is encountered, and the figures and charts in the back of the regulations give visual pictures of decommissioning the different types of wells and the amount of disinfectant and bentonite that is necessary to meet the requirements for decommissioning. When the decommissioning is completed, it must be reported as required by Title 178 NAC12-012.10 with the Director of Department of Natural Resources on the Notice of Abandonment form supplied by the Department of Natural Resources within 60 days of the decommissioning. Please note the exceptions as required in Neb. Rev. Statute #46-602(2).

I have been locating and using the GPS to get the legal description to notify the landowner and the DNR of the illegal well. This way they have a record of the well and have means of when it is decommissioned. All of us are drinking out of the same underground pool, so please take the time to decommission these old abandoned wells, as they are the probable number one source of groundwater contamination. You can contact the local NRD to see what programs are available for assistance.

WEBSITES:

CEU hours earned and date due:

<http://www.nol.org/LISSearch/search.cgi>

Water Well Standards Program:

<http://www.hhss.ne.gov/enh/wwsindex.htm>

Monitoring Static Water Levels **During the Drought**

By Tom Christopherson and Randy Fisher

Since 1999 the Midwest has been suffering from the effects of drought conditions. To help in the management of groundwater resources during the drought, the State has been tracking water levels recorded from Public Water Supply wells as a way to map the severity of drought conditions (see insert of map).

As a water well drilling and/or pump installation contractor, you can make a major contribution to this effort. When completing a water well or servicing a pump system, you may have noticed fluctuations in static water levels. By recording and reporting the following information to NHHS, the drought map can be a handy tool for your business and help the State manage this essential life saving resource. Please include the total depth of the well, static water level, pumping water level, and geographic location. Send this information to:

Randy Fisher—NHHS Environmental Assistance Coordinator, PO Box 95007, Lincoln, NE 68509 (402) 471-1007 or;

Tom Christopherson—NHHS Water Well Standards Program Manager, PO Box 95007, Lincoln, NE 68509 or e-mail us at:
randy.fisher@nhss.ne.gov
tom.christopherson@nhss.ne.gov

Board Meeting Dates for remainder of 2006

August 16	10:00 a.m.	NSOB - Lincoln
October 18	10:00 a.m.	NSOB - Lincoln
December 13	10:00 a.m.	NSOB - Lincoln

All Board meetings are open to the public and everyone is welcome to attend.

2006 Licensure/Certification Examinations:

September 5	Norfolk, Grand Island, North Platte, Lincoln
November 7	Norfolk, Grand Island, North Platte, Lincoln

If you want to test your drilling vocabulary, here is a sample from the National Ground Water Association's "Illustrated Glossary of Drillers Terms":

"Blooeey Line" means:

- a) ruptured line from the air compressor
- b) a pick up line that doesn't work any more
- c) a flow line used in air drilling to handle cuttings

"Drilling Card" means:

- a) drilling license
- b) a real funny driller
- c) special use permit

"Ice the Well" means:

- a) kill the well
- b) call time out before kicking football over the well bore
- c) clean scale from the well using CO2

(See answers below)

CONTINUING EDUCATION

PROGRAMS

=====

Well Development Workshop—Approved for 12 CEU hrs
Held in Grand Island, NE on August 17-18, 2006.

Sponsored by Nebr. Well Drillers Assoc—402-476-0162

Understanding Migration, Assessment & Remediation of Non-Aqueous Phase Liquids—Approved for 20 CEU hrs
Held in San Francisco, CA on September 27-29, 2006.

Sponsored by National Groundwater Assoc-800-551-7379

Business Workshop—Approved for 6 CEU hrs.

Held in Lincoln, NE on October 26, 2006. Sponsored by Nebr. Well Drillers Assoc---402-476-0162

ATTENTION**ATTENTION****ATTENTION**

Please refer to the inserted listing of Continuing Education Programs. The list spans from 2004 thru 2006 and consists of programs that have been approved by the Board. It is provided to you for your convenience and as a reference.

[The answer to all the above is "C"]

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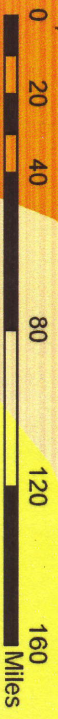
Well Bits is published by the Water Well Standards Program of the Nebraska Health and Human Services System, Department of Regulation & Licensure. The goal of Well Bits is to inform licensed/certified contractors of news and information related to the industry. Suggestions for articles are appreciated; however, we reserve the right to decide whether an item is appropriate for publication. Send your ideas, questions, and comments to: Well Bits, Water Well Standards, P.O. Box 95007, Lincoln, NE 68509.

Severe Drought Systems Reporting Drought Restrictions June 15, 2006

Abnormally Dry

Moderate Drought

Severe Drought



Legend

Systems affected by drought

- Conservation
- Infrastructure
- Water Level

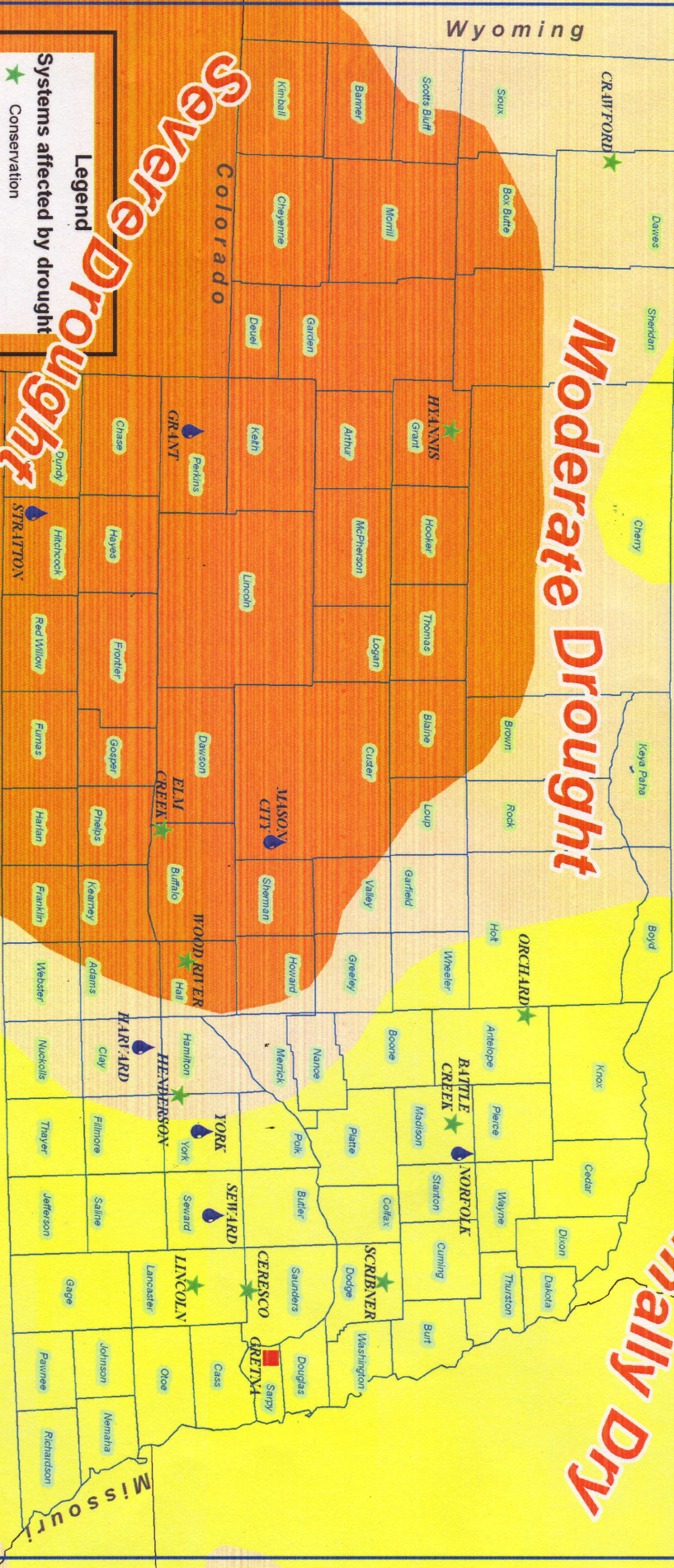
County Boundaries

Other States

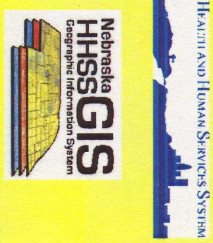
Severe Drought

Moderate Drought

Abnormally Dry

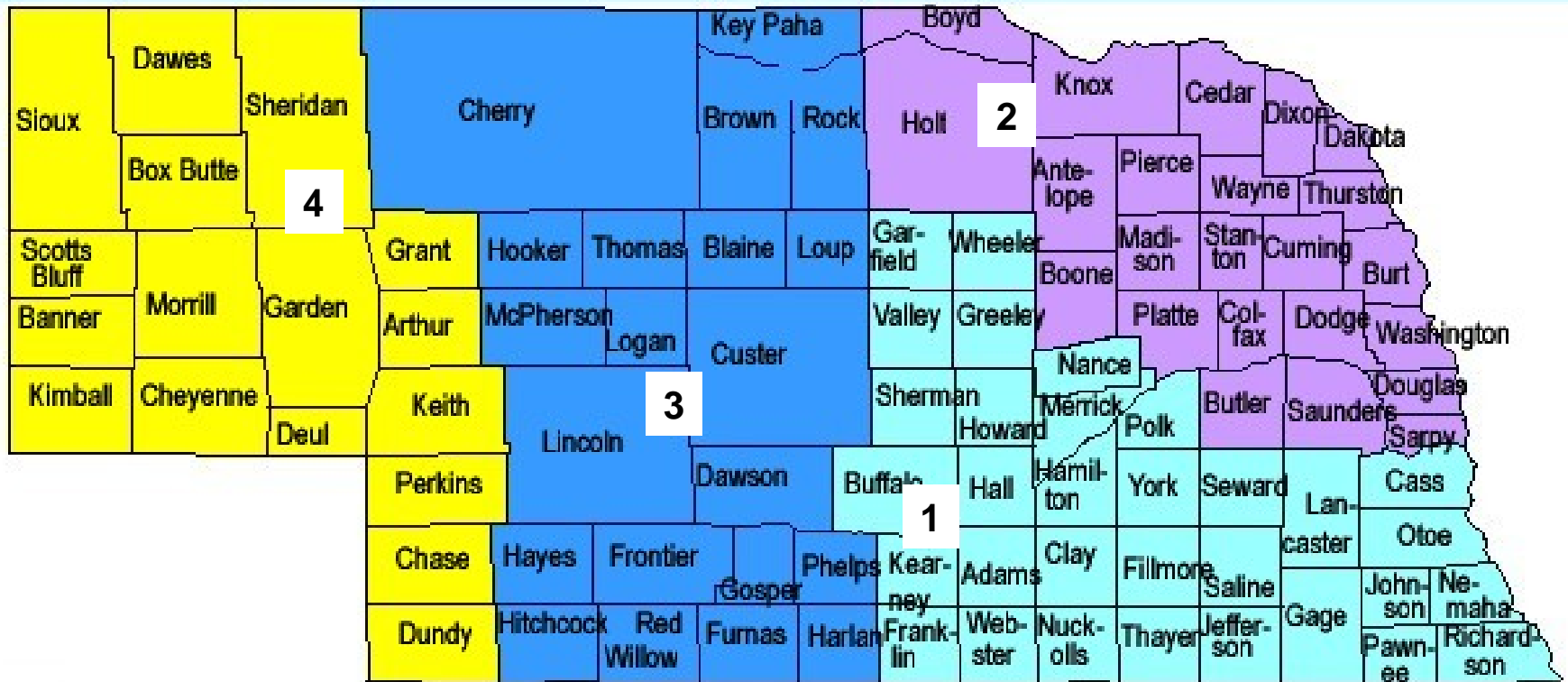


Data Source:
National Drought Mitigation Center
University of Nebraska-Lincoln



STATE OF NEBRASKA – DEPARTMENT OF HEALTH AND HUMAN SERVICES

Regulation and Licensure – Water Well Standards Field Areas



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Approved CEU Programs Jan 2004 thru Oct 2006

Start Date	End Dates	Event Name Sponsor	Approved Hours Location
10/26/2006		Business Workshop Nebraska Well Drillers Association	6 Lincoln, NE
09/27/2006	09/29/2006	Understanding Migration, Assessment, & National Groundwater Association	20 San Francisco, CA
08/17/2006	08/18/2006	Well Development Workshop Nebraska Well Drillers Association	12 Grand Island, NE
05/23/2006		NRD Groundwater Training Nebraska Association of Resources Districts	4 Wahoo, NE
05/23/2006		Wellcare Workshop The Groundwater Association	4 Lake McConaughy, NE
05/04/2006		Iowa Groundwater Association 2006 Spring Iowa Groundwater Association	4 Ankeny, IA
04/15/2006		Nebraska Geological Society Field Trip Nebraska Geological Society	6 Jefferson County, NE
04/11/2006		Bacteria & Pesticide Equipment Training Nebraska Association of Resources Districts	4 Lake McConaughy, NE
04/07/2006		Variable Speed Pump/Grundfos Sub-factory Hydro Pump Co	4 Omaha, NE
03/31/2006		Lithological Training Iowa Department of Natural Resources	3 Des Moines, IA
03/22/2006		Lithological Training Iowa Department of Natural Resources	3 Calmar, IA
03/17/2006		Bacteria & Pesticide Equipment Training Nebraska Association of Resources Districts	4 O'Neill, NE
03/15/2006		Bacteria & Pesticide Equipment Training Nebraska Association of Resources Districts	4 Lincoln, NE
03/14/2006	03/16/2006	18th Annual Environmental & Groundwater South Dakota Department of Natural Resources	7.5 Pierre, SD
03/08/2006		Lithological Training Iowa Department of Natural Resources	3 Mason City, IA
03/07/2006		NRD 2006 Annual Conference Sessions Nebraska Association of Resources Districts	5.25 Kearney, NE
02/22/2006		Lithological Training Iowa Department of Natural Resources	3 Spencer, IA
02/17/2006		NRD Groundwater Training Nebraska Association of Resources Districts	4 Kearney, NE
02/14/2006	02/16/2006	Annual Convention & Exposition Nebraska Well Drillers Association	2 Lincoln, NE
02/08/2006		Lithological Training Iowa Department of Natural Resources	3 Atlantic, IA

Start Date	End Date	Event Name Sponsor	Approved Hours Location
01/27/2006	01/29/2006	2005 Colorado Annual Convention Colorado Water Well Contractors Association	7 Colorado Springs, CO
01/26/2006	01/27/2006	Iowa Water Well Association Annual Iowa Water Well Association	8 Des Moines, IA
01/24/2006	01/25/2006	NRD 2006 Annual Legislative Conference Nebraska Association of Resources Districts	3.5 Kearney, NE
01/19/2006	01/20/2006	Kansas Groundwater Convention Kansas Groundwater Association	8 Great Bend, KS
01/19/2006		Horizontal Collector Well Monitoring & Collector Wells Intl., Inc	1 Ashland, NE
01/12/2006	01/13/2006	Annual Short Course Nebraska Well Drillers Association	12 Kearney, NE
01/10/2006	01/12/2006	2006 North American Environmental Field Neilsen Environmental School	24 Tampa, FL
12/13/2005	12/16/2005	National Ground Water Expo 2005 National Ground Water Association	16.5 Cobb County, GA
12/13/2005		Water Issues Meeting Upper Niobrara White NRD	5 Alliance, NE
11/30/2005		Well Design & Chemical Cleaning Johnson Screens	6 Golden, CO
11/18/2005		EPI Symposium Environmental Professionals of Iowa	4.5 Des Moines, IA
11/18/2005		Isotope Hydrology Workshop Minnesota Groundwater Association	6.5 White Bear Lake, MN
11/17/2005		Geochemistry for Scientific Investigations Minnesota Groundwater Association	6 White Bear Lake, MN
10/25/2005		Water Distribution System Hydraulics Nebraska Rural Water Assoc	2 Paxton, NE
10/25/2005		Annual Education Conference Nebraska Rural Water Assoc	1 Ashland, NE
10/14/2005		Grundfos SQE Constant Pressure Variable Hydro Pump Co	4 LaVista, NE
10/03/2005	10/03/2005	Vertical Turbine School Gould Turbine Pumps	20 Lubbock, TX
09/26/2005	09/27/2005	NRD 2005 Annual Conference Sessions Nebraska Association of Resources Districts	6 Kearney, NE
08/25/2005	08/26/2005	Water Well Construction in Artesian Nebraska Well Drillers Association	12 York, NE
08/10/2005	08/12/2005	MTBE & TBA: Comprehensive Site US Environmental Protection Agency & Interstate	17 San Francisco, CA
07/30/2005	08/02/2005	2005 South Atlantic Jubilee South Atlantic Jubilee	36 Myrtle Beach, SC
07/13/2005	07/14/2005	Aquifer Test Analysis Waterloo Hydrogeologic Inc	14 Waterloo, Ontario, Canada

Start Date	End Date	Event Name Sponsor	Approved Hours Location
07/11/2005	07/15/2005	Groundwater Pollution & Hydrology Course Princeton Groundwater Inc	34 San Francisco, CA
05/26/2005	05/27/2005	Southern Nebraska/Northern Kansas Nebraska Well Drillers Association	12 Southern Nebraska/Northern Kansas
05/24/2005		Natural Resources Groundwater Technician Nebraska Association of Resources Districts	4 Valentine, NE
05/17/2005	05/18/2005	Chemigation Workshop Nebraska Association of Resources Districts	9 Grand Island, NE
04/19/2005		Water Sampling Workshop Nebraska Department of Environmental Quality	3 North Platte, NE
04/17/2005	04/21/2005	2005 Groundwater Summit National Ground Water Association	9.5 San Antonio, TX
04/16/2005		Grundfos SQE Constant Pressure Variable Preferred Pump	4 Alda, NE
04/14/2005		Nebraska Well Care Workshop Water Systems Council	4.5 Lincoln, NE
04/12/2005	04/14/2005	40th Annual Shallow Exploration Drillers Shallow Exploration Drillers Clinic	15 Lincoln, NE
04/08/2005		Well Problems & Solutions, Closed & Hydro Pump Co	4 Omaha, NE
03/30/2005	04/01/2005	CHMM National Overview Course CHMM-Midwest Plains Chapter	17 Omaha, NE
03/28/2005		Pentair Water Systems Short Course Roberts Pump and Supply Co	4 Grand Island, NE
03/13/2005	03/15/2005	Annual South Dakota/North Dakota Well South Dakota Well Drillers Assoc	10 Deadwood, SD
03/11/2005		Nebraska Geological Society Field Trip Nebraska Geological Society	8 Peru, NE to Ft Calhoun NE
03/02/2005	03/02/2005	Irrigation Contractor Meeting Natural Resources Conservation Service	3 Bridgeport, NE
03/01/2005		NRD Water Programs Conference Nebraska Association of Resources Districts	6.5 Kearney, NE
02/28/2005		Natural Resources Groundwater Technician Nebraska Association of Resources Districts	4 Kearney, NE
02/16/2005	02/17/2005	Annual Convention & Exposition Nebraska Well Drillers Association	2 Lincoln, NE
01/28/2005	01/29/2005	Iowa Water Well Association Annual Iowa Water Well Association	7 West Des Moines, IA
01/25/2005	01/26/2005	NRD Legislative Conference Nebraska Association of Resources Districts	4.5 Lincoln, NE
01/18/2005	01/20/2005	Valley Service Seminar Valmont Industries Co	23 Omaha, NE
01/10/2005		Grundfos SQE Constant Pressure Variable Hydro Pump Co	3 Millard, NE
01/06/2005	01/07/2005	Annual Short Course Nebraska Well Drillers Association	12 Kearney, NE
01/06/2005	01/06/2005	Water Issues Meeting Upper Niobrara White Natural Resources District	4 Alliance, NE

Start Date	End Date	Event Name Sponsor	Approved Hours Location
12/12/2004	12/15/2004	Ground Water Expo Annual Convention National Ground Water Association	23.5 Las Vegas, NV
12/08/2004		Backflow Re-certification Central Community College	5 Gretna, NE
12/07/2004		Backflow Re-certification Central Community College	5 Norfolk, NE
12/02/2004		Backflow Re-certification Central Community College	5 Hastings, NE
11/30/2004		Backflow Re-certification Central Community College	5 Grand Island, NE
11/18/2004		Backflow Prevention Training American Backflow Prevention Association	2 Gering, NE
10/26/2004	10/27/2004	NRD Groundwater Technician Course Nebraska Association of Resources Districts	9.75 Ord, NE
10/19/2004	10/20/2004	Environmental Water Well Conference Nebraska Well Drillers Association	12 Kearney, NE
10/07/2004		Republican River Basin Geology Field Trip Nebraska Well Drillers Association	8 Holdrege, NE
10/06/2004		Voluntary Cleanup Program Workshop Nebraska Department of Environmental Quality	6 Omaha, NE
09/27/2004	09/28/2004	NRD Annual Conference Sessions Nebraska Association of Resources Districts	3 Kearney, NE
09/14/2004	09/15/2004	Mud & Grout Drilling School Nebraska Well Drillers Association	12 North Platte, NE
09/14/2004	09/15/2004	Fall Water Conference Nebraska Rural Water Association	5.5 Gering, NE
08/17/2004		Titan Industries Pump Workshop Titan Industries, Inc.	2 Gering, NE
07/29/2004		Dealer/Contractor Training for Flow Meter South Platte Natural Resources District	4.25 Sidney, NE
05/25/2004		Light Non-Aqueous Phase Liquids NDEQ/Iowa DNR	6 Council Bluffs, IA
05/20/2004	05/20/2004	Southeastern Nebraska Geology Field Trip Nebraska Well Drillers Association	8 Southeastern Nebraska
05/04/2004		Understanding & Accelerating Remediation Regenisis	4 Des Moines, IA
04/27/2004		Confined Aquifer Workshop Upper Big Blue Natural Resources District	2 York, NE
04/17/2004		Making the Most of Your Drilling Fluids Wyo-Ben	4 Grand Island, NE
04/02/2004		VFD/Sub Drive Presentation and Credit & Hydro Pump Co	4 Omaha, NE
03/29/2004	03/31/2004	39th Annual Shallow Exploration Drillers Kansas Department of Transportation	10.5 Topeka, KS
03/24/2004		Dealer/Contractor Training for Flow Meter South Platte Natural Resources District	5 Sidney, NE

Start Date	End Dates	Event Name Sponsor	Approved Hours Location
03/23/2004	03/30/2004	RBCA Procedures & Report Forms Nebraska Department of Environmental Quality	4 North Platte, Lincoln
03/17/2004	03/18/2004	NRD Groundwater Technician Course South Dakota DENR	6 Pierre, SD
03/15/2004	03/18/2004	Grundfos Alternative Power Grundfos Pump	4 O'Neill, Valentine, Alliance, McCook
03/15/2004	03/18/2004	Grundfos Alternative Power Roberts Pump & Supply Co	4 O'Neill, Valentine, Alliance, and McCook
03/02/2004		NRD Water Programs Annual Conference Water Distribution System Hydraulics	4.75 Kearney, NE
03/01/2004	05/27/2004	NRD Groundwater Certification Training Nebraska Association of Resources Districts	4 Norfolk, NE
02/19/2004	03/11/2004	Bacteria/Pesticide Monitoring Equipment Nebraska Association of Resources Districts	5 Lincoln, O'Neill,
02/11/2004	02/12/2004	Annual Convention Nebraska On-Site Waste Water Association	5 Lincoln, NE
02/11/2004	02/12/2004	Annual Convention & Exposition Nebraska Well Drillers Association	4 Lincoln, NE
01/29/2004	01/30/2004	Groundwater: Fallacies & Forecasts Iowa Water Well Association	1 Des Moines, IA
01/29/2004	01/30/2004	Iowa Water Well Association Annual Iowa Water Well Association	8 Des Moines, IA
01/27/2004	01/28/2004	Legislative Conference Nebraska Association of Resources Districts	3 Lincoln, NE
01/21/2004	01/23/2004	Certified Hazardous Materials Manager Illinois Institute of Technology	2 Illinois, NE
01/14/2004	01/16/2004	2004 North American Environmental Field Neilsen Environmental Field School	21 Tampa, FL
01/08/2004	01/09/2004	Annual Short Course Nebraska Well Drillers Association	12 Kearney, NE